

in a general way to elevation, continuance at a height, and decrease of temperature. Finkler arrives at the conclusion that fever is a neurosis, mainly a disease of a nervous system, regulating the temperature. Pflüger's theory to explain the regulation of heat is as follows: an automatic centre which presides over the production of heat, and another centre which acts upon the automatic centre as an inhibitory apparatus, and on its side stands in connection with the temperature nerves of the skin, and is set into activity through the action of heat, so that the so-called coldness in general is not an irritant. When the excitation of the inhibitory centre slackens, then the automatic enters into activity, so that coldness of the skin corresponds to increased production of heat, whilst warmth of the skin corresponds to lessened formation of heat. Finkler explains the action of these centres in fever as follows: intense, increased oxidation destroys the substance generating the fever. The chilly feeling and contraction of the capillaries denote increase of warmth-production; that in the first stage of fever a stronger excitation of the automatic centre takes place, because the nerves of the inhibitory centre are in a more or less paralytic state. In the second stage of fever, when the temperature of fever is constant, the relations of the two centres are changed. The production of heat remains as in previous stage, increased to about the same extent. The inhibitory centre has again attained its domination over the automatic, not because the latter in its excitation is toned down, but because the inhibitory centre has again a greater power of conductivity. In the return of the temperature to normal, or the decrease of the fever, here the increase of the tissue-metamorphoses lessens, the excitation of the automatic centre weakens, since the fever-producing material is eliminated. The inhibitory centre which, in the previous stage, had a relative domination over the automatic, now reacts normally or with subnormal irritability. Finkler made an experiment during this period, and found a considerable sinking of the oxidation below normal.—*Pflüger's Archiv*, Band xxix, 3 and 4 Heft., 1882.

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HYPNOTISM.—Drs. Tamburini and Seppilli have made a series of studies upon the phenomena of motion, sensation, respiration, and circulation in the state of lethargy, catalepsy, and somnambulism. In the state of lethargy there is nervo-muscular excitability; in the cataleptic state the limbs are plastic. In the state of lethargy the tendon reflexes are exaggerated; in the cataleptic state, greatly diminished. The paradoxical muscular contraction is produced in lethargy with the greatest facility, and not so readily in the cataleptic state. When the paradoxical muscular contraction is produced either in the stage of lethargy or catalepsy, the passage from one state to the other resolves it. In the state of lethargy there is not complete analgesia; in catalepsy it is complete.

In lethargy the ovary, when pressed upon, is hyperæsthetic; in

catalepsy no pain is felt. In lethargy the respiration is regular and moderately deep ; in catalepsy the breathing is slow, superficial, and irregular. When a magnet is used in the vicinity of the epigastrum an apnœa results for some seconds. In lethargy the blood-vessels of the extremities dilate ; in catalepsy they contract, as is shown by the plethysmograph. When a sphygmograph is placed upon the carotid in a state of lethargy, a strong progressive augmentation of the height of the pulse-curve takes place, if a magnet approaches the head. It has no effect on the pulse in catalepsy.—*Rivista sperimentale di freniatria e di medicina legale.*

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b.—GENERAL PATHOLOGY OF THE NERVOUS SYSTEM.

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INJURY TO THE HEAD ; SLIGHT CONCUSSION ; RAPID ACCESSION OF COMA AND DEATH.—The patient, æt. fifteen, a rather anaemic-looking boy, was brought to the London Hospital on April 29th. He was said by his friend to have taken a dive in the river, striking his head with violence on the bottom. The symptoms agreed with this account, the patient being on admission in a dull and semi-unconscious state, complaining only of headache, and apparently suffering from slight concussion of the brain. He was left at rest with ice to the head, and three days after admission seemed nearly well and wanted to go home. He would probably have been discharged had no further symptoms occurred the next day. The same night he again was attacked with intense headache. The pupils were dilated ; no paralysis was present ; speech became an evident exertion to him, and on bidding he performed movements, such as protruding the tongue, etc., after an interval. There was now noticed for the first time a slight purulent discharge from the left ear. One of the patients in the ward was told by the father of the boy on this day that a discharge had been present before admission, for which he had been under treatment outside, and also that he had previously suffered for some time with headache. This was the first intimation that the boy had been out of health, notwithstanding inquiries made of the friends. Symptoms next day were increased, and the patient died on the fifth day after admission, having been comatose about an hour before death occurred. The condition of the discs, just before death, pointed to a commencing neuritis ; the margin presented a woolly appearance. On post-mortem examination the dura mater was found adherent to the brain, posteriorly. In the left parietal and temporal region was a blackened spot covering a large abscess cavity, reaching as far as, though not entering, the ventricular space, and containing a very considerable quantity of very foul pus. The temporal bone was necrosed, and pus found between that bone and the dura mater. The coincidence of the injury and the brain mischief is obviously of much interest, as supposing the boy had